

**METHOD, APPARATUS AND PROGRAM STORAGE DEVICE THAT  
PROVIDE VIRTUAL SPACE TO HANDLE STORAGE DEVICE FAILURES IN  
A STORAGE SYSTEM**

5

**ABSTRACT**

A method, apparatus and program storage device that provides virtual hot spare space to handle storage device failures in a storage system is disclosed. Data is migrated from a failed storage device to a hot spare storage device, which may be a virtual hot spare device spanning multiple physical storage devices or even existing as a subset of a single physical storage device, until a replacement storage device is hot swapped for the failed storage device. Once the replacement storage device is installed, the recovered data on the hot spare is moved back to the replacement storage device.

10